REMARKS

This Amendment is filed in response to the Office Action mailed June 5, 2008 in connection with a Petition for a 1-Month Extension of Time. The Applicant respectfully requests reconsideration of the rejections presented therein.

Claims 1-34 are pending in the applciation.

Claim 34 has been amended to correct a typographical error.

Claim Objections

At paragraph 3 of the Office Action, claim 34 was objected to as reciting "[t]he method of claim 33," while claim 33 recited an apparatus. The Applicant notes that use of the word "method" was a typographical error. Claim 34 has been amended to recite "[t]he apparatus of claim 33", as was intended.

Claim Rejection - 35 U.S.C. §112, second paragraph

At paragraph 4 of the Office Action, claim 34 was rejected under 35 U.S.C. §112, second paragraph, as reciting "[t]he method of claim 33", while claim 33 recited an apparatus. As discussed above, claim 34 has been amended to address this typographical error, and accordingly the rejection is believed to be moot.

Claim Rejection - 35 U.S.C. §102

At paragraphs 5-6 of the Office Action, claims 1-4, 6, 11-14, 15, 17, 20-27, 29-32 were rejected under 35 U.S.C. §102(e) as anticipated by Yuasa et al., U.S. Patent No. 6,560,236 (hereinafter "Yuasa").

The Applicant's claim 1, representative in part of the other rejected claims, sets forth (emphasis added):

> 1. A method for use by an intermediate network device having a plurality of interfaces for forwarding network packets among the interfaces, one or more of the interfaces being associated with one or more Virtual Local Area Network (VLAN) designations, the method comprising the steps of:
> *mapping each VLAN designation to a site identifier;*

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receiving on an inbound interface a packet having a site-local uni-
cast destination address;
identifying the VLAN designation associated with the received
packet;
utilizing the identified VLAN designation to retrieve the site iden-
tifier to which the VLAN designation is mapped;
*creating a modified destination address by embedding the re-
trieved site identifier into the site-local unicast destination address*; and
*rendering a forwarding decision for the received packet based on
the modified destination address*.

Yuasa discusses a "virtual LAN system" in which virtual groups based on physi-
cal attributes and logical attributes are formed. *See* abstract. In one part of the descrip-
tion, Yuasa discusses that "local switches 203a" maintain "virtual group registra-
tion/routing table sections 214a ... in which client addresses and virtual group IDs
(VLAN IDs) of virtual groups (VLANs) are entered." *See* Yuasa col. 37, lines 38-42.
An example of a virtual group registration table section 214a maitaining this information
is shown in Fig. 20. *See* col. 37, lines 61-65. Each local switch references a table sec-
tion 214a and "only when the destination virtual group ID of a transmission packet does
not match the virtual group ID of the local site entered in the virtual group registra-
tion/routing table section 214a..., the packet is forwarded from the local switch 203a...."
See col. 37, lines 42-50.

In a completely separate description, two columns later, Yousa discusses "[a] site
identification code to identify local or internet is placed in a predetermined location of a
packet...." *See* col. 39, lines 55-56. For example, when a packet "is forwarded to the
internet or WAN (wide area network), the site and VLAN-ID of the packet are encapsu-
lated in the packet...." *See* col. 39, lines 61-64.

First, the Applicant respectfully urges that Yuasa does not suggest "*mapping each
VLAN designation to a site identifier.*"

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In rejecting this aspect of the claims, the Office Action urges that Yuasa "'matches the virtual group ID of the local site', and 'a site identification code'". *See* Office Action page 3. However, a close reading of Yousa reveals that Youse does not actually operate in this manner.   Instead, of matching "a virtual group ID" and "a site identification code", Yousa simply matching one "virtual group ID" to another "virtual group ID". Then, in completely unrelated operations, Yousa stores "a site identification code" in a predetermined location in a packet, for example, by encapsulation. There is simply no relation between the two.

Specifically, under the heading "9th Embodiment" at col. 37, lines 42-50, Yousa states that "only **when the destination virtual group ID of a transmission packet does not match the virtual group ID of the local site** entered in the virtual group registration/routing table section 214a…, the packet is forwarded from the local switch 203a…." (emphasis added). That is, a first virtual group ID (i.e., "the destination virtual group ID of the transmission packet") is matched with a second virtual group ID (i.e., "the virtual group ID of the local site").

Then, in a separate discussion under the heading "10th Embodiment" at col. 39, lines 55-56, Yousa describes "[a] site identification code to identify local or internet is placed in a predetermined location of a packet…." *See* col. 39, lines 55-56.

At no location in Yousa does Yousa teach mapping/matching a "virtual group ID" to the "site identification code."

Accordingly, the Applicant respectfully urges Yousa is legally insufficient to anticipate the present claims under 35 U.S.C. §102 because of the absence of the Applicant's claimed "*mapping each VLAN designation to a site identifier.*"

Second, the Applicant respectfully urges that Yuasa also does not suggest "*creating a modified destination address by embedding the retrieved site identifier into the*

site-local unicast destination address" and "*rendering a forwarding decision for the received packet based on the modified destination address.*"

While the Applicant embeds a site identifier **into a site-local unicast destination address**, Yousa does not embed his "site identification code" into any destination addresses. In contrast, Yousa simply takes his "site identification code" and places it "in a predetermined location of a packet." *See* Yousa col. 39, lines 55-56. For example, the site identification code may be placed in the packet using encapsulation. *See* Yousa col. 39, lines 61-64. Placing something into a packet (for instance, into an encapsulation header) is quite different than embedding something into a destination address.

As Yousa does not embed a site identifier into a site-local unicast destination address to create a modified destination address, Yousa certainly does not teach "*rendering a forwarding decision for the received packet based on the modified destination address.*"

Accordingly, the Applicant also respectfully urges Yousa is also legally insufficient to anticipate the present claims under 35 U.S.C. §102 because of the absence of the Applicant's claimed "*creating a modified destination address by embedding the retrieved site identifier into the site-local unicast destination address*" and "*rendering a forwarding decision for the received packet based on the modified destination address.*"

Claim Rejection - 35 U.S.C. §103

At paragraph 7 of the Office Action, claims 7-9 and 18 rejected under 35 U.S.C. §103(a) over Yuasa, in view of Chang et al., U.S. Patent No. 6,728,249 (hereinafter "Chang").

At paragraphs 8 of the Office Action, claim 19 was rejected under 35 U.S.C. §103(a) over Youda, in view of Chang, in further view of Muller et al., U.S. Patent No. 5,938,736 (hereinafter "Muller").

The Applicant notes that claims 7-9, 18 and 19 are dependent claims that depend from independent claims believed to be allowable for at least the reasons discussed above. Claims 7-9, 18 and 19 are believed to be allowable due to their dependency, as well as for other separate reasons.

At paragraph 9 of the Office Action, claims 5, 10, 16, 28, 33 and 34 were rejected under 35 U.S.C. §103(a) over Yuasa, in view of Ichikawa et al., U.S. Patent No. 6,728,249 (hereinafter "Ichikawa").

The Applicant notes that claims 5, 10, 16 and 28 are dependent claims that depend from independent claims believed to be allowable for at least the reasons discussed above. Claims 5, 10, 16 and 28 are believed to be allowable due to their dependency, as well as for other separate reasons.

As for claims 33 and 34, representative claim 33 sets forth (emphasis added):

33. An apparatus comprising:
        a plurality of interfaces configured to receive and forward packets, one or more of the interfaces associated with one or more virtual local area network (VLAN) designations;
        a forwarding information base (FIB) configured to store routing information;
        a routing engine in communicating relationship with the FIB, the routing engine configured to make forwarding decisions for received packets, based at least in part on the routing information in the FIB; and
        a memory in communicating relationship with the routing engine, the memory configured *to store the VLAN designations* associated with the device's interfaces *in mapping relationship with one or more site identifiers*,
        wherein the routing engine is further configured to, in response to receipt of a packet on an inbound interface having a site-local unicast destination address, identify a VLAN designation associated with an outbound interface from which the packet is to be forwarded, *utilize the identified VLAN designation for the outbound interface to retrieve a site identifier to which the VLAN designation is mapped*, compare a site identifier associated with an inbound interface with the site identifier associated with the outbound interface, and if the two site identifiers match, for-

ward the packet on the outbound interface, and if the two site identifiers
do not match, drop the packet without forwarding.

The Applicant respectfully urges that both Yuasa and Ichikawa are silent regarding the claimed *"to store the VLAN designations ... in mapping relationship with one or more site identifiers"* and *"utilize the identified VLAN designation for the outbound interface to retrieve a site identifier to which the VLAN designation is mapped."*

As discussed above in relation to claim 1, Yousa only describes matching one "virtual group ID" to another "virtual group ID", **not** matching a "virtual group ID" to "a site identification code." As such, Yousa does not suggest a mapping between VLAN designations with one or more site identifiers.

Further, the deficiencies of Yousa are not remedied by combination with Ichikawa. Ichikawa merely discusses matching "a set of a terminal address and a VLAN-ID" in a table with a "source address 4-2 and VLAN-ID 4-3" in a data packet. *See* Ichikawa col. 9, lines 12-17. Again, no mention is made of mapping VLAN designations with one or more site identifiers.

Accordingly, the Applicant respectfully urges that the combination of Yousa and Ichikawa is legally insufficient to make obvious the present claims under 35 U.S.C. §103 at least because of the absence of the Applicant's claimed *"to store the VLAN designations ... in mapping relationship with one or more site identifiers"* and *"utilize the identified VLAN designation for the outbound interface to retrieve a site identifier to which the VLAN designation is mapped."*

In the event that the Examiner deems personal contact desirable in disposition of this case, the Examiner is encouraged to call the undersigned attorney at (617) 951-2500.

In summary, all the independent claims are believed to be in condition for allowance and therefore all dependent claims that depend there from are believed to be in condition for allowance. The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account

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Respectfully submitted,

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